

WHAT IS CLAIMED IS:

1. A non-aqueous electrolyte battery comprising a positive electrode, a negative electrode, non-aqueous
5 electrolyte and a separator,

wherein an active material of the positive electrode includes lithium manganese oxide; the shut-down temperature of said separator is 162°C or less; and the area contraction ratio of said separator at 120°C is 15% or less.

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2. The non-aqueous electrolyte battery according to Claim 1, wherein said active material of the positive electrode is a mixture of lithium manganese oxide and lithium cobalt oxide or a mixture of lithium manganese oxide and a lithium-nickel
15 complex oxide.

3. The non-aqueous electrolyte battery according to Claim 2, wherein the ratio of lithium cobalt oxide or the lithium-nickel complex oxide in said active material of the
20 positive electrode is 10 wt.% to 90 wt.%.

4. The non-aqueous electrolyte battery according to Claim 1, wherein said non-aqueous electrolyte battery has a capacity of 1500 mAh or higher.

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5. A non-aqueous electrolyte battery having a positive electrode, a negative electrode, non-aqueous electrolyte and a separator,

wherein an active material of the positive electrode
5 includes lithium manganese oxide; the shut-down temperature of said separator is 162°C or lower; and the difference between the film-breaking temperature and the shut-down temperature is 20°C or higher at the time when the temperature rises at 15°C/min. (wherein the film breaking temperature > the shut-down
10 temperature).

6. The non-aqueous electrolyte battery according to Claim 5, wherein said active material of the positive electrode is a mixture of lithium manganese oxide and lithium cobalt oxide
15 or a mixture of lithium manganese oxide and a lithium-nickel complex oxide.

7. The non-aqueous electrolyte battery according to Claim 6, wherein the ratio of lithium cobalt oxide, or of the
20 lithium-nickel complex oxide, in said active material of the positive electrode is 10 wt.% to 90 wt.%.

8. The non-aqueous electrolyte battery according to Claim 5, wherein said separator has a cross-linked structure.

9. The non-aqueous electrolyte battery according to Claim 5, wherein said non-aqueous electrolyte battery has a capacity of 1500 mAh or higher.